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IN THE CLAIMS

Please amend claims 123, 124, 126, 130-134, 136, 137, 139 and 141 as follows:

Claims 1-122 (canceled).

Claim 123 (currently amended). A method for objectively identifying a known ~~source~~ product, comprising:

obtaining ~~empirical~~ isotopic data from elements present in said ~~source~~ product;

providing a mathematical array that includes the ~~empirical~~ isotopic data, the mathematical array being fixed in a readable form ~~on a tangible medium of expression~~, said ~~tangible medium of expression~~ readable form with said mathematical array fixed thereon being an identification of said ~~source~~ product;

wherein the ~~empirical~~ isotopic data does not include data obtained from a taggant; and

wherein the product consists essentially of a pharmaceutical product.

Claim 124 (currently amended). The method in accordance with claim 123 wherein the ~~source~~ product does not include a taggant.

Claim 125 (previously presented).The method of claim 123 wherein said elements are selected from the group of elements consisting of carbon, hydrogen, oxygen, nitrogen, sulphur and combinations thereof, said isotopes being any of the thirteen stable isotopes thereof.

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Claim 126 (currently amended). The method of claim 123, wherein said ~~concentrations of isotopes are~~ data is determined by an analysis selected from the group of analyses consisting of bulk phase analysis and specific compound analysis.

Claim 127 (previously presented). The method of claim 126, wherein said bulk phase analysis includes off-line dual inlet isotope ratio mass spectrometry (irMS) and on-line combustion coupled with high resolution isotope ratio monitoring/mass spectrometry (irmMS).

Claim 128 (previously presented). The method of claim 126, wherein said specific compound analysis includes gas chromatography coupled with irMS (irmGCMS) and liquid chromatography coupled with irMS (irmLCMS).

Claim 129 (previously presented). The method of claim 126, wherein said analysis includes nuclear magnetic resonance.

Claim 130 (currently amended). A method for objectively identifying a known ~~source~~ product, comprising:

obtaining ~~empirical~~ isotopic data from elements present in said ~~source~~ product;

providing a mathematical array that includes the ~~empirical~~ isotopic data, the mathematical array being fixed in a readable form ~~on a tangible medium of expression~~, said ~~tangible medium of expression~~ readable form having said mathematical array fixed thereon being an identification of said ~~source~~ product;

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wherein the ~~empirical~~ isotopic data comprises ~~empirical~~ isotopic data for at least one isotope of an element selected from the group consisting of carbon, hydrogen, nitrogen, oxygen and sulfur; and

wherein the product consists essentially of a pharmaceutical product.

Claim 131 (currently amended). The method of Claim 130 wherein said ~~empirical~~ isotopic data comprises data selected from the group consisting of one or more intrinsic concentrations of isotopes, one or more ratios of intrinsic concentrations of two isotopes, one or more mathematical products of intrinsic isotopic concentrations or ratios, one or more lists of a plurality of mathematical products of intrinsic isotopic concentrations or ratios, one or more groups of any such lists, one or more groups of any such mathematical products, one or more groups of any such ratios, one or more groups of any such concentrations, one or more mathematical products of any such concentrations plus or minus their error added, one or more mathematical products of any such ratios plus or minus their error added, any such concentrations, ratios, lists, groups and mathematical products in quadrature, one or more of any such concentrations plus or minus their errors added, one or more of any such ratios plus or minus their errors added, factor analysis of any such concentrations, ratios, lists, groups, mathematical products, and any determinants and combinations thereof present in said ~~source~~ product.

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Claim 132 (currently amended). The method of claim 130 wherein at least a portion of said mathematical array ~~in machine~~ fixed in a readable form is associated with said ~~source~~ product through manufacturing, marketing and use.

Claim 133 (currently amended). The method of claim 130 wherein said mathematical array and product information associated with the ~~source~~ product are fixed ~~on the tangible medium of expression~~ in machine readable form.

Claim 134 (currently amended). The method of claim 133 wherein said mathematical array and said product information are indexed to said ~~source~~ product in the form of machine readable serial numbers, bar codes, and other numerical and alphabetical indicia.

Claim 135 (previously presented). The method of claim 130 wherein said elements are selected from the group of elements consisting of carbon, hydrogen, oxygen, nitrogen, sulphur and combinations thereof, said isotopes being any of the thirteen stable isotopes thereof.

Claim 136 (currently amended). The method of claim 130 wherein said elements are selected from the group of elements that have ~~two or more~~ more than two isotopes, said isotopes being any of the 224 stable isotopes thereof.

Claim 137 (currently amended). The method of claim 133, wherein said mathematical array is indexed to said product information in said ~~medium of expression~~ readable form.

Claim 138 (previously presented). The method of claim 133, wherein said product information is in a form operable to be scrolled, downloaded or printed.

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Claim 139 (currently amended). The method of claim 130, wherein said ~~isotopes are selected from the group consisting of the 252 existing stable isotopes of known elements that have two or more isotopes~~ elements are selected from the group of elements that have two isotopes.

Claim 140 (previously presented). The method of claim 130, wherein said isotopes are selected from the group consisting of the 13 stable isotopes of a group of elements consisting of carbon, hydrogen, oxygen, nitrogen, sulphur and combinations thereof.

Claim 141 (currently amended). The method of claim 130, wherein an error of identification is selected based upon the mathematical array chosen, the number of concentrations of isotopes utilized in said array, and the portion of said first array compared with ~~said~~ a second array.

Claim 142 (previously presented). The method of claim 130, wherein said concentrations of isotopes are determined by an analysis selected from the group of analyses consisting of bulk phase analysis and specific compound analysis.

Claim 143 (previously presented). The method of claim 142, wherein said bulk phase analysis includes off-line dual inlet isotope ratio mass spectrometry (irMS) and on-line combustion coupled with high resolution isotope ratio monitoring/mass spectrometry (irmMS).

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Claim 144 (previously presented). The method of claim 142, wherein said specific compound analysis includes gas chromatography coupled with irMS (irmGCMS) and liquid chromatography coupled with irMS (irmLCMS).

Claim 145 (previously presented). The method of claim 142, wherein said analysis includes nuclear magnetic resonance.

Claim 146 (previously presented). The method of claim 133 wherein said mathematical array and said product information are stored in memory on a machine; wherein said machine readable forms and product information are indexed; and wherein said machine readable forms once identified through the index presents stored product information in displayed form.

Claim 147 (previously presented). The method of claim 146, wherein said product information may be scrolled through.

Claim 148 (previously presented). The method of claim 146, wherein said product information may be printed.

Claim 149 (previously presented). The method of claim 146, wherein said product information may be accessed through said index from said machine readable form of said mathematical array.

Claim 150 (previously presented). The method of Claim 142 wherein said bulk phase analysis and said specific compound analysis each has a dynamic range equal to the observed range divided by the 1-sigma standard deviation.

Claim 151 (previously presented). The method of Claim 142 wherein the precision of said bulk phase analysis and said specific compound analysis is the

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1-sigma standard deviation of the analysis performed divided by the square root of the number of observations of said analysis.

Claim 152 (previously presented). The method of Claim 130 wherein said obtaining step comprises obtaining intrinsic isotopic concentrations of C^{13}, N^{15}, O^{18} and H^3 in a sample; and wherein the specificity of said determining is calculated by the following equation:

$$\text{Specificity} = (1\sigma\text{-}\delta^{13}C/\Delta\delta^{13}C)*(1\sigma\text{-}\delta^{15}N/\Delta\delta^{15}N)*(1\sigma\text{-}\delta^{18}O/\Delta\delta^{18}O)*(1\sigma\text{-}\delta D/\Delta\delta D)$$

Claim 153 (previously presented). The method of Claim 130 wherein the specificity of said determining is inversely proportional to the product of the dynamic ranges of said isotopic analyses undertaken of said sample.

Claim 154 (previously presented). The method of Claim 150 wherein the dynamic range is the range of values expected for an analysis divided by the 1-sigma standard deviation of that analysis.

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